

What is claimed is:

1. A plasma exchange waste liquid purification and circulation dialysis apparatus wherein at least a portion of separated plasma is purified and circulated as a dialysis solution to 5 dialyze patient's blood to remove harmful substances contained in the plasma.
2. The apparatus of Claim 1, which is used in a simple plasma exchange therapy.
3. The apparatus of Claim 1, which is used in a double-filtration 10 plasma exchange therapy.
4. The apparatus of Claim 1, comprising a purifier and a dialyzer as a constituent element of the apparatus.
5. The apparatus of Claim 4 wherein an apparatus for plasma separation that are used in the plasma exchange functions 15 also as the dialyzer.
6. The apparatus of Claim 4 or 5 wherein the purifier is composed of an adsorption separator.
7. The apparatus of one of Claims 1 to 6 wherein the plasma separated in the plasma exchange therapy functions as 20 reservoir of the dialysis solution.
8. The apparatus of one of Claims 1 to 7, being composed of a hemofilter, a purifier, a three-way tap (A), a pump (4), a line (4) and a line (5) shown in Fig.1.
9. A plasma exchange apparatus incorporating the plasma 25 exchange waste liquid purification and circulation dialysis apparatus according to any one of the preceding claims.

10. The apparatus having the composition shown in Fig. 1.
11. An artificial liver equipped with the apparatus according to any one of the preceding claims.